

REMARKS

By this amendment, claims 14, 21, 23 and 28 are amended. Thus, claims 14-30 are now active in the application. Reexamination and reconsideration of the application are respectfully requested.

In items 2-23 on pages 2-7 of the Office Action, claims 14-20 were rejected under 35 U.S.C. §102(b) as being anticipated by Vincenot (WO 03/010994); claim 21 and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Vincenot in view of Takewa et al. (US 5,862,242); claims 23-26, 28 and 29 were rejected under 35 U.S.C. 103(a) as being unpatentable over Vincenot in view of Takewa and Karr (US 3,716,671); and claims 27 and 30 were rejected under 35 U.S.C. 103(a) as being unpatentable over Vincenot in view of Takewa, Karr and Ringel (US 1,951,531). These rejections are believed clearly inapplicable to the claims as amended, for the following reasons.

With exemplary reference to the drawing figures, independent claim 14 sets forth a speaker arrangement comprising: a speaker 1 including a speaker diaphragm 6, and a speaker frame arrangement (7 or 7 plus 100) fixed to the speaker diaphragm 6 about an outer periphery thereof so that the speaker diaphragm 6 spans across an opening in the speaker frame arrangement, a fixing portion 4 of the diaphragm 6 being defined by a boundary at which the diaphragm 6 meets a periphery of the opening of the frame arrangement; and a speaker grille 3 supported by the speaker frame arrangement 7, 100, the speaker grille 3 having a sound opening 2 therein; wherein the speaker diaphragm 6 includes a diaphragm center (see, for example, Figs. 1A and 1B) and a diaphragm edge portion 4A and is fixed to the speaker frame arrangement 7, 100 in such a manner as to define a diaphragm vibration plane having a shape that is one of circular and oval; wherein the speaker grille 3 includes a blocking portion 5 including a center blocking portion arranged so as to oppose the diaphragm center of the diaphragm 6, and a peripheral blocking portion (e.g., the peripheral portion disposed outwardly of the four sound openings 2 in Fig. 1A) constituting an outer periphery of the speaker grille 3 and surrounding at least the sound opening 2; wherein the sound opening includes an opening portion that is disposed so as to oppose a region of the diaphragm 6 between the fixing portion 4 and the diaphragm edge portion 4A thereof; and wherein an effective open area provided by the sound opening 2 of the speaker grille 3 is at least 31% and less than 60% of an area of the diaphragm 6.

Thus, claim 14 has been amended to specify that the blocking portion 5 of the speaker grille 3 includes not only the center blocking portion arranged so as to oppose the diaphragm center of the diaphragm 6, but also a peripheral blocking portion constituting an outer periphery of the speaker grille 3 and surrounding at least the sound opening 2 (as illustrated by the peripheral portion of the grille 3 shown outwardly of the four sound openings shown in Fig. 1A).

Claim 21 has been similarly amended to the amendment of claim 14.

In contrast to the present invention as recited in claims 14 and 21, the Vincenot reference discloses a loudspeaker arrangement in which a diaphragm 19 defines an acoustic emission plane P and a closure 25 shaped to block “only one central zone of said emission plane.” (See abstract) The closure 25 of the Vincenot reference has sound openings only at each side thereof. The Vincenot closure 25 does not include a peripheral blocking portion constituting an outer periphery of a speaker grille and surrounding at least the sound opening, as required by each of claims 14 and 21.

Accordingly, it is believed apparent that claim 14 and 21, as well as the claims which depend therefrom, are not anticipated by the Vincenot reference.

The Takewa et al. patent was cited by the Examiner for disclosing a “a loudspeaker with an oblong and rounded diaphragm vibration plane.” The Karr reference was cited for disclosing “a speaker housing (Fig. 1) including a grille 38 with a solid central portion and sound openings separated by ribs extending in the direction of a minor axis.” The Ringel patent was cited by the Examiner for disclosing “a loudspeaker (Figs. 1, 2) including a pole piece 9 that corresponds to the magnet claimed and is on the surface of a base plate 11 arranged across a central portion of the loudspeaker frame.” None of these references, however, discloses or suggest the features of the present invention requiring the speaker grille to include a blocking portion including a center blocking portion arranged to oppose the diaphragm center of the diaphragm, and a peripheral blocking portion constituting an outer peripheral of a speaker grille and surrounding at least the sound opening, and wherein the sound opening includes an opening portion that is disposed so as to oppose a region of the diaphragm between the fixing portion and the diaphragm edge portion thereof, as required by each of claims 14 and 21.

Therefore, for the above reasons, it is believe apparent that the features of the present invention as required in claims 14 and 21 are in no way disclosed or suggested by the references

of record. The above-discussed distinctions between the present invention of claims 14 and 21 and the prior art of record are such that a person having ordinary skill in the art would not have found it obvious to modify the Vincenot arrangement or to make any combination of the prior art of record in such a manner as to result in or otherwise render the obvious the present invention of claims 14 and 21. Therefore, it is respectfully submitted that claims 14 and 21, as well as the claims depending therefrom, are clearly allowable over the prior art of record.

The Examiner's attention is also directed to the fact that previously-independent claims 23 and 28 have been amended so as to depend from the independent claim 21, and are therefore submitted to the to be allowable for the same reasons as presented above in support of claims 14 and 21.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is earnestly solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

Kazuhiko IKEUCHI

By: 
Charles R. Watts
Registration No. 33,142
Attorney for Applicant

CRW/asd
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
May 23, 2007